

Appendix B

Performance Data Quality and Timeliness

PERFORMANCE DATA QUALITY AND TIMELINESS

Timely, accurate, and reliable data are essential for effective decision-making; without high-quality data, decisions cannot be made effectively or reliably. The Department has had a consistent focus on improving the quality of the data we use to administer our programs and to develop policy. We are proud of our accomplishments to date and the ongoing processes we have in place that will continue to enhance data timeliness, accuracy, and reliability. In this appendix, we present some of our initiatives and activities to improve the quality and utility of our data.

In fiscal year (FY) 2004, our data improvement activities focused upon two primary areas:

- Enhancing our data collection activities with states and programs to increase the accuracy, timeliness, and utility of our data.
- Continuing to implement the *President's Management Agenda* by more closely integrating our budget and performance data systems and optimizing program performance measures so that appropriations and the concomitant policy decisions are more closely tied to program performance.

Changing How We Work with States to Collect Data—Performance-Based Data Management System

The Performance-Based Data Management Initiative is a collaborative effort among the Department, state educational agencies, and industry partners to improve the quality and timeliness of education information. This initiative provides a common method of acquiring and exchanging data with the states, which will ultimately enable the Department to acquire data at the state, school, and district levels. It also organizes collection activities in a way that minimizes the burden on state educational agencies, which must provide the Department with statistical information.

This initiative is establishing a central database for Department K–12 data, including those data mandated for collection by the No Child Left Behind Act. This

central database, the Education Data Exchange Network (EDEN), is an electronic exchange system for performance information on federal K–12 education programs. It will have data analysis and reporting capabilities, which will allow users to obtain information about the status and progress of education in the states, districts, and schools.

Beginning in spring 2005, Department users and the public will have access to data through the Data Analysis and Reporting System. The Education Data Exchange Network uses Extensible Markup Language (XML) to assist in structuring data within this reporting system. Consequently, state educational agencies, local educational agencies, and schools will find this system useful for benchmarking and for identifying best practices. The Department's Office of Elementary and

Extensible Markup Language Improves Data Capabilities

Extensible Markup Language provides a set of rules for describing the structure of data. Field descriptors or "tags" give meaning to the encoded content, and hierarchical combinations of tags allow increased utility of the data. XML allows groups of people or organizations to create their own customized markup applications for exchanging information in a particular domain. XML encoded data are used for a wide variety of applications, including information exchange and system integration.

These are areas in which the Department is improving its data handling capabilities and for which we are implementing XML in our operations. The Performance-Based Data Management Initiative is creating a customized XML mark-up application with encoded data for K–12 education data, and the Office of Federal Student Aid is working with the Postsecondary Electronics Standards Council and other organizations to create an XML standard for the education community. Both of these offices are working cooperatively with their state counterparts.

Secondary Education expects to begin using the database network for its data collections in 2005, and the Office of Special Education Programs has plans to begin using it in

2006. Another feature of EDEN is the Database Network Survey Tool that the Department's Office for Civil Rights is using for its 2004–05 annual survey on civil rights.

Improving Data Systems—Office of Safe and Drug-Free Schools

The Department's Office of Safe and Drug-Free Schools is improving state data systems and linking those improvement activities to The Performance-Based Data Management Initiative. The No Child Left Behind Act requires that each state collect certain school crime and safety data elements and report the data collected to the public. Under the statute states must create a system for collecting and disseminating information for several data elements, including truancy and the incidence of violence and drug-related offenses leading to suspension and expulsion.

The Grants to States to Improve Management of Drug and Violence Prevention Program provides support to states to explore strategies that will address the challenges they face in collecting and using data, including the following:

- Lack of standardized collection instruments and definitions both within and across states.
- Lack of expertise related to collecting data about youth drug use and violence.
- Lack of time and other resources to support high-quality data collection and analysis in these areas.

Improved data collection systems that result from this program will allow state, district, and school administrators to develop, expand, and/or enhance the capacity of state and local educational agencies to collect, analyze, and use data to improve the quality of drug and violence prevention programs. In addition, they will be able to identify the needs of students and assess progress in addressing these important problems.

An innovative feature of the grant competition in 2004 was the requirement that applicants must design a program that complements the Department Performance-

Based Data Initiative. Specifically, project proposals had to be designed to:

- Be consistent with the state's PBDMI strategy and produce data that can be transmitted to the U.S. Department of Education via its Education Data Exchange Network Project.
- Include validation and verification activities at the state and substate recipient levels designed to ensure the accuracy of data collected and reported.

The first projects funded under this program were awarded in September 2004.

Developing an Enterprise Data Strategy—Federal Student Aid

In FY 2003, the Office of Federal Student Aid, the Department's office that administers the student financial assistance programs for postsecondary students, embarked on a multiyear effort to develop an enterprise data strategy that will provide a consistent and integrated business intelligence infrastructure for all of our operations.

Specifically, during FY 2004, the office initiated a special data quality improvement effort with our trading partners to identify key data problems and prioritize their relative impact on student aid data quality. Further, the office established and worked with the Department's Data Quality Steering Committee to develop a detailed Data Quality Execution Plan. This plan defined the core elements that are the focus of the data quality cleanup and defined the process for maintaining the quality of these data standards. In addition, the office has collaborated with the Postsecondary Electronic Standards Council to harmonize, normalize, and standardize data used by the Department, operating partners, and the financial aid community. The result of this collaborative work is housed in the XML Registry and Repository for the education community, due for release in fall 2004.

Timely and Reliable Monitoring Systems—Office of Postsecondary Education

The Department's Office of Postsecondary Education developed the e-Monitoring System, a flexible and fast software tool that uses grants award data from our Office of the Chief Financial Officer to enable program staffs to track both the fiscal and programmatic progress of each grant. Daily uploads as well as downloads between our Grants Administration and Payment and e-Monitoring systems will assure that program staff have current data at their desktops. The e-Monitoring System was developed in response to the need for fast, accurate, up-to-date information at all levels in the Office of Postsecondary Education about both the performance and the financial status of its grants and the need to better document project monitoring activities.

The e-Monitoring system assembles in one place core data that are common to all grants, such as grant award number, total amount, begin and end dates, and drawdowns of funds, and enables program staff to document grantee implementation problems from identification to resolution. The application can be modified to accommodate the unique monitoring requirements of any grant program. An evaluation of the office's use and benefits of the system is underway in 2004–05; if the system is successful, it will be made available to all Department program offices to increase the availability of accurate and timely grant award information to enhance program monitoring.

Performance Budgeting—Integrating Budget and Performance Data

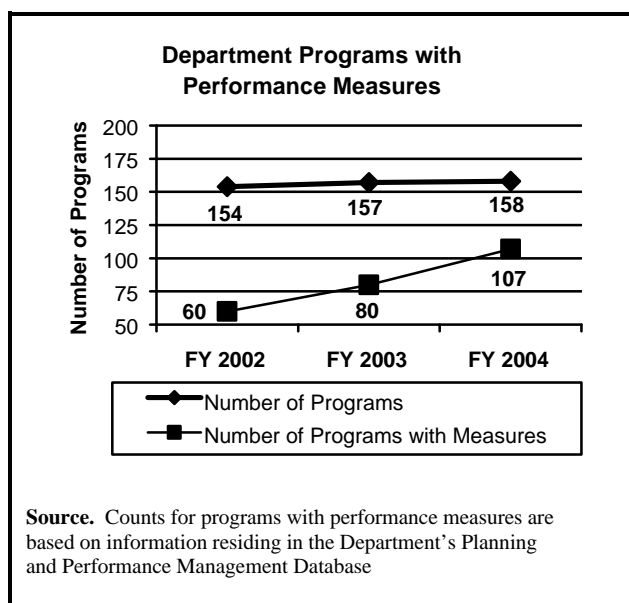
Ensuring that data are high quality is not solely the responsibility of our grantees that report data to us. The Department itself also develops and uses data. One of the most visible areas in which this occurs is the annual budget development process. The central focus of our budget process is to align goals, objectives, performance measures, and program funding levels to develop a performance budget. One of the five governmentwide elements of the *President's Management Agenda* is the

integration of budget and performance, which focuses on making budget decisions based on results. Although immediate connections between specific performance and funding levels are sometimes challenging to make, the Department is developing significant and reliable performance data to inform budget decisions.

A performance budget, the foundation to effective operations, is an integrated annual performance plan and annual budget that shows the relationship between program funding levels and expected results. It indicates that a certain set of goals should be achieved at a given funding level. Including program performance information in the budget justifications helps provide a strong basis for the budget policy.

The Department has been using two sets of measures to report under the Government Performance and Results Act—strategic-level measures that assess overall progress, and program measures that assess progress at the individual program level. In future years, with the implementation of a Department-wide data management system, and with the centralization of performance measures under the Department's Budget Service in 2004, we plan to identify key valid, reliable, and important measures from the program measures and feature them as our strategic measures.

The number of specific programs for which the Department has performance measures is increasing. The graph below shows the increase from 2002 to 2004. Beginning in FY 2006, there will be a further increase in the number of discrete programs for which we have specific program-related performance measures that can be used in the budget process.



Challenges in Timely Performance Reporting

The Department works in partnership with schools, local educational agencies, state educational agencies, and postsecondary institutions to provide data about national education progress. In many cases, the information we provide has been gathered by schools, amassed at the district level, reported to states, and then forwarded to the Department for our use. For a school year ending in June, it is close to impossible for the Department to get this information in time to include it in the same year's *Performance and Accountability Report*.

For the school year ending June 2004, for example, schools report final year-end data to their districts in summer 2004. In the early fall, districts complete the process of forwarding data to their state departments of education. State agencies review, edit, and begin to aggregate the information. They follow up with those data providers that are late. They comply with their state-specific laws and policies about summing, reporting, and providing data to the U.S. Department of Education. Generally speaking, we begin to get their data in late fall and early winter. We follow up on missing data and perform our own edit checks and

analysis in late winter and early spring. It is not until near the end of school year (SY) 2004–05 that we have complete information about SY 2003–04. Institutions of higher education have a similar staged process for reporting postsecondary statistics.

Discretionary grantees report their final grant results directly to us, but regulations provide 60 to 90 days after the end of the award period (which may be multiple years) for them to submit their final reports. After receipt of the final reports, the Department checks and analyzes the data before performance results are compared to performance targets.

This time lag in reporting national education data is frustrating to the Department and to those to whom we report data. In the majority of cases, we report in this *Performance and Accountability Report* that 2004 education data are not yet available. Although the *FY 2004 Performance and Accountability Report* is designed to report the accomplishments of the FY 2004 year, we report the most recent data we have available and identify when data for the next cycle are expected. The Performance-Based Data Management Initiative and other Department efforts described in this appendix will reduce the data lag and improve data quality, but we do not foresee a feasible solution to reporting school-level data within five months of the school year-end.

In those cases where the Department collects data directly, such as the National Assessment of Education Progress (NAEP) and measures of our internal financial processes, we have more control over timing. We have reduced the data lag for NAEP from two years down to eight months for the last administration of the assessment, which was conducted in March 2003 and reported in November 2003. And we are able to report final or near-final data for all of our financial measures within 45 days of year-end.

The Department is operating with high-quality data and continues to work to improve the accuracy, reliability, and timeliness of data that we collect and to increase our effective use of the information. We continue to make substantial annual improvements in this area.

